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ORIGINAL

FLOOD INSURANCE STUDY

COMPLETED
23

VILLAGE OF LONG CREEK, ILLINOIS
MADISON COUNTY

AUGUST 4, 1987

Federal Emergency Management Agency

COMMUNITY NUMBER - 171016

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NOTICE TO
FLOOD INSURANCE STUDY USERS

Communities participating in the National Flood Insurance Program (NFIP) have established repositories of flood hazard data for floodplain management and flood insurance purposes. This Flood Insurance Study (FIS) may not contain all data available within the repository. It is advisable to contact the community repository for any additional data.

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Not Applicable	Panels 01P - 11P
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Flood Boundary and Floodway Map

PUBLISHED SEPARATELY:

Flood Insurance Rate Map

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FLOOD INSURANCE STUDY

VILLAGE OF LONG CREEK,
MACON COUNTY, ILLINOIS

1.0 INTRODUCTION

1.1 Purpose of Study

This Flood Insurance Study investigates the existence and severity of flood hazards in the Village of Long Creek, Macon County, Illinois, and aids in the administration of the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973. This study has developed flood risk data for various areas of the community that will be used to establish actuarial flood insurance rates and assist the community in its efforts to promote sound flood plain management. Minimum flood plain management requirements for participation in the National Flood Insurance Program are set forth in the Code of Federal Regulations at 44 CFR, 60.3.

In some states or communities, flood plain management criteria or regulations may exist that are more restrictive or comprehensive than the minimum Federal requirements. In such cases, the more restrictive criteria take precedence and the state (or other jurisdictional agency) will be able to explain them.

This Flood Insurance Study was prepared by compiling existing hydrologic and hydraulic technical and scientific data prepared by the Federal Emergency Management Agency (FEMA) for purposes of the National Flood Insurance Program. The data were identified as the best available at the time of compilation of this Flood Insurance Study and should depict the general conditions of the flooding sources with relative accuracy. FEMA performed a cursory review and accepted the data as valid for purposes of this Flood Insurance Study and the National Flood Insurance Program. However, if better information is known to exist or has been developed since the date of this report, the information should be immediately forwarded to the Natural and Technological Hazards Division, Federal Emergency Management Agency, Chicago, Illinois for consideration for revision of this study.

1.2 Authority and Acknowledgements

The sources of authority for this Flood Insurance Study are the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973.

The hydrologic and hydraulic analyses for this study were obtained from the Flood Insurance Study for the Unincorporated Areas of Macon County, Illinois (Reference 1).

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1.3 Coordination

On July 21, 1986, the results of this Flood Insurance Study were reviewed and accepted at a final coordination meeting attended by representatives of the community and FEMA.

2.0 AREA STUDIED

2.1 Scope of Study

This Flood Insurance Study covers the incorporated area of the Village of Long Creek, Macon County, Illinois. The area of study is shown on the Vicinity Map (Figure 1).

The areas studied by detailed methods were selected based upon the extent and validity of available existing hydrologic and hydraulic data.

Flooding caused by overflow of Long Creek (east of Big Creek) within the corporate limits was studied in detail.

Approximate methods of analysis were used to study all remaining areas having a potential flood hazard that did not have detailed scientific or technical data available. Long Creek Tributary was studied by approximate methods.

2.2 Community Description

The Village of Long Creek is located in eastern Macon County in central Illinois. It is bordered by the City of Decatur on the northwest and by the unincorporated areas of Macon County on all other sides.

The climate is of the humid, continental type, characterized by cold, relatively dry winters and warm-to-hot, wet summers. The average maximum and minimum temperatures at Decatur during 1945-1980 were 77 degrees Fahrenheit (F.) and 28 degrees F., respectively. The average rainfall at Decatur for the same period was 32.4 inches (Reference 2).

Long Creek rises about 2 miles southeast of Oakley and flows southwesterly through wild terrain to join with Big Creek. It then flows into Lake Decatur on the Sangamon River. Long Creek, a small creek, is bounded on each side by a strip of generally unfarmable land. The total length of the creek is 9.8 miles and the fall is 102 feet.

2.3 Principal Flood Problems

In Macon County, floods along the Sangamon River and its principal tributaries are of frequent occurrence and considerable duration. The Sangamon River has been known to flood four times in one year. Flooding in Macon County is usually caused by snowmelt in the drainage area, often accompanied by prolonged early spring rain or, occasionally, by prolonged late spring or fall rains alone.

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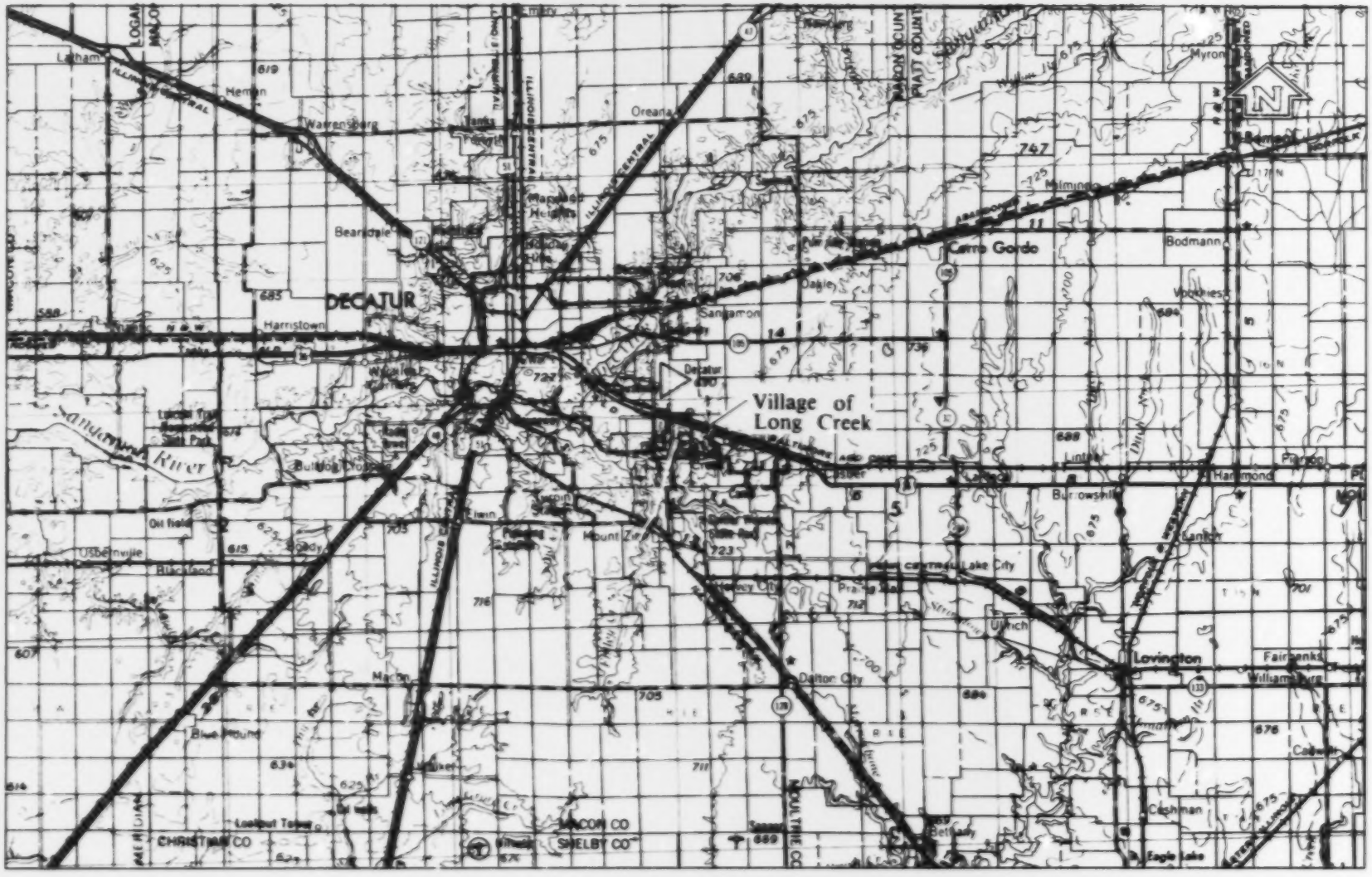

FIGURE 1

FEDERAL EMERGENCY MANAGEMENT AGENCY

VILLAGE OF LONG CREEK, IL
(MACON CO.)

APPROXIMATE SCALE

4 0 4 8 12 MILES

VICINITY MAP

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2.4 Flood Protection Measures

No flood protection measures are known to exist within the study area.

3.0 ENGINEERING METHODS

For the flooding sources studied in detail in the community, standard hydrologic and hydraulic study methods were used to determine the flood hazard data required for this study. Flood events of a magnitude which are expected to be equaled or exceeded once on the average during any 10-, 50-, 100-, or 500-year period (recurrence interval) have been selected as having special significance for flood plain management and for flood insurance rates. These events, commonly termed the 10-, 50-, 100-, and 500-year floods, have a 10, 2, 1, and 0.2 percent chance, respectively, of being equaled or exceeded during any year. Although the recurrence interval represents the long term average period between floods of a specific magnitude, rare floods could occur at short intervals or even within the same year. The risk of experiencing a rare flood increases when periods greater than 1 year are considered. For example, the risk of having a flood which equals or exceeds the 100-year flood (1 percent chance of annual exceedence) in any 50-year period is approximately 40 percent (4 in 10), and, for any 90-year period, the risk increases to approximately 60 percent (6 in 10). The analyses reported herein reflect flooding potentials based on conditions existing in the community at the time of completion of this study. Maps and flood elevations will be amended periodically to reflect future changes.

3.1 Hydrologic Analyses

Hydrologic analyses were carried out to establish the peak discharge-frequency relationships for each flooding source studied in detail affecting the community.

The U.S. Geological Survey (USGS) report "Technique for Estimating Magnitude and Frequency of Floods in Illinois" (Reference 3) was used to determine the discharges as prescribed by the Illinois Division of Water Resources (DWR) (Reference 4).

Peak discharges for the 10-, 50-, 100-, and 500-year floods of each flooding source studied in detail in the community are shown in Table 1.

TABLE 1 - SUMMARY OF DISCHARGES

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (SQ MILES)	PEAK DISCHARGE (CFS) 10-YEAR	50-YEAR	100-YEAR	500-YEAR
LONG CREEK (EAST OF BIG CREEK) at confluence with Big Creek	18.1	1,980	2,900	3,590	4,630

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3.2 Hydraulic Analyses

Analyses of the hydraulic characteristics of flooding from the sources studied were carried out to provide estimates of the elevations of the floods of the selected recurrence intervals.

The U.S. Army Corps of Engineers (COE) provided source data consisting of digitized cross sections in computer data decks for Long Creek. Minor changes were authorized by FEMA through which the new structures built in the flood plain since the COE work around 1970 were field surveyed and the revisions to the data files were made. At the locations where the surveyed channel cross sections were provided, the overbank sections were developed from USGS topographic maps (Reference 5).

Locations of selected cross sections used in the hydraulic analyses are shown on the Flood Profiles. For stream segments for which a floodway was computed (Section 4.2), selected cross-section locations are also shown on the Flood Boundary and Floodway Map.

Channel and overbank roughness factors (Manning's "n") were assigned, reflecting engineering judgment based on field observations and photographs taken by field crews. Channel and overbanks roughness values used were 0.04 and 0.08, respectively.

Starting water-surface elevations were calculated using the slope-area method. When appropriate, the tributary starting water-surface elevation was adjusted by engineering judgment to reflect probable water surfaces during flooding on the larger streams. The 10-, 50-, 100-, and 500-year flood profiles were modeled using the COE HEC-2 water-surface profiles computer program (Reference 6). Input data consisted of discharges, roughness factors, expansion and contraction coefficients, cross-section coordinates (elevation and station), and distances between cross sections measured along the left overbank, right overbank, and channel.

Flood profiles were drawn showing the computed water-surface elevations for floods of the selected recurrence intervals.

The hydraulic analyses for this study are based only on the effects of unobstructed flow. The flood elevations shown on the profiles are, thus, considered valid only if hydraulic structures remain unobstructed, operate properly, and do not fail.

All elevations are referenced to the National Geodetic Vertical Datum of 1929 (NGVD). Elevation reference marks used in the study are shown on the maps.

4.0 FLOOD PLAIN MANAGEMENT APPLICATIONS

The National Flood Insurance Program encourages state and local governments to adopt sound flood plain management programs. Therefore, each Flood Insurance Study produces maps designed to assist communities in developing flood plain management measures.

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4.1 Flood Boundaries

To provide a national standard without regional discrimination, the 1 percent annual chance (100-year) flood has been adopted by FEMA as the base flood for flood plain management purposes. The 0.2 percent annual chance (500-year) flood is employed to indicate additional areas of flood risk in the community. For each stream studied in detail, the 100- and 500-year flood plain boundaries have been delineated using the flood elevations determined at each cross section. Between cross sections the boundaries were interpolated using topographic maps enlarged to a scale of 1:12000 with a contour interval of 10 feet (Reference 5).

The 100- and 500-year flood plain boundaries are shown on the Flood Boundary and Floodway Map. In cases where the 100- and 500-year flood plain boundaries are close together, only the 100-year boundary has been shown. Small areas within the flood plain boundaries may lie above the flood elevations but cannot be shown due to limitations of the map scale and/or lack of detailed topographic data.

Areas of approximate flooding were taken from the Macon County Flood Hazard Boundary Map (Reference 7).

4.2 Floodways

Encroachment on flood plains, such as structures and fill, reduces the flood-carrying capacity, increases the flood heights and velocities, and increases flood hazards in areas beyond the encroachment itself. One aspect of flood plain management involves balancing the economic gain from flood plain development against the resulting increase in flood hazard. For purposes of the National Flood Insurance Program, a floodway is used as a tool to assist local communities in this aspect of flood plain management. Under this concept, the area of the 100-year flood plain is divided into a floodway and a floodway fringe. The floodway is the channel of a stream plus any adjacent flood plain areas that must be kept free of encroachment so that the 100-year flood can be carried without substantial increases in flood heights. Minimum Federal standards limit such increases to 1.0 foot, provided that hazardous velocities are not produced. In Illinois, though, under Revised Statutes, Section 65f, Chapter 19 as amended 1973 (Reference 8), encroachment in the flood plain is limited to that which will cause only an insignificant increase in flood heights. Thus, at the recommendation of the Illinois DWR, a floodway having no more than a 0.1-foot surcharge has been delineated for this study.

The floodways presented in this study were computed on the basis of equal conveyance reduction from each side of the flood plain. The results of these computations were tabulated at selected cross sections for each stream segment for which a floodway was computed and are presented in Table 2, Floodway Data.

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FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NGVD)	WITHOUT FLOODWAY (FEET NGVD)	WITH FLOODWAY (FEET NGVD)	INCREASE (FEET)
LONG CREEK (EAST OF BIG CREEK)								
A	350	500[2]	2466	1.5	630.4	626.0[4]	626.0	0.0
B	1900	304[2]	1022	3.5	630.4	627.4[4]	627.5	0.1
C	2650	165[2]	920	3.9	630.9	630.9	630.9	0.0
D	3100	500[2]	2737	1.3	631.7	631.7	631.7	0.0
E	3900	450[2]	1630	2.2	632.1	632.1	632.1	0.0
F	6300	370[3]	1365	2.6	635.9	635.9	636.0	0.1
G	7100	180	405	8.9	638.0	638.0	638.1	0.1
H	8050	250[3]	1507	2.2	641.4	641.4	641.4	0.0
I	9700	360	1717	2.0	642.7	642.7	642.8	0.1
J	11,450	200	770	4.4	645.9	645.9	645.9	0.0
K	12,150	343	1726	2.0	647.1	647.1	647.1	0.0
L	12,750	125[2]	755	4.5	654.1	654.1	654.1	0.0
M	13,950	320[2]	3205	1.1	655.1	655.1	655.1	0.0
N	14,790	320[2]	2342	1.4	655.1	655.1	655.1	0.0
O	16,810	350[2]	1742	1.9	655.7	655.7	655.8	0.1
P	19,440	450[2]	1918	1.8	661.4	661.4	661.4	0.0
Q	20,260	450[2]	1935	1.7	661.8	661.8	661.9	0.1
R	21,460	500[2]	1825	1.8	662.5	662.5	662.6	0.1
S	23,510	500[2]	1417	1.9	664.2	664.2	664.3	0.1
T	25,527	600[2]	1863	1.4	666.5	666.5	666.5	0.0
U	28,067	289[2]	915	3.0	671.7	671.7	671.7	0.0
V	28,737	550[2]	2309	0.9	672.2	672.2	672.2	0.0
W	29,433	600[2]	1964	1.1	672.4	672.4	672.5	0.1
X	30,743	600[2]	1427	1.5	673.0	673.0	673.1	0.1
Y	31,483	500[2]	888	2.5	674.0	674.0	674.1	0.1

[1]FEET ABOVE MOUTH
[2]THIS WIDTH IS BEYOND CORPORATE LIMITS
[3]THIS WIDTH EXTENDS BEYOND CORPORATE LIMITS
[4]ELEVATIONS WITHOUT CONSIDERING BACKWATER EFFECT FROM LONG CREEK

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

VILLAGE OF LONG CREEK, IL
(MACON CO.)

FLOODWAY DATA

LONG CREEK (EAST OF BIG CREEK)

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As shown on the Flood Boundary and Floodway Map, the floodway boundaries were computed at cross sections. Between cross sections, the boundaries were interpolated. In cases where the floodway and the 100-year flood plain boundaries are either close together or collinear, only the floodway boundary has been shown.

The area between the floodway and the 100-year flood plain boundaries is termed the floodway fringe. The floodway fringe thus encompasses the portion of the flood plain that could be completely obstructed without increasing the water-surface elevation of the 100-year flood more than 0.1 foot at any point. Typical relationships between the floodway and the floodway fringe and their significance to flood plain development are shown in Figure 2.

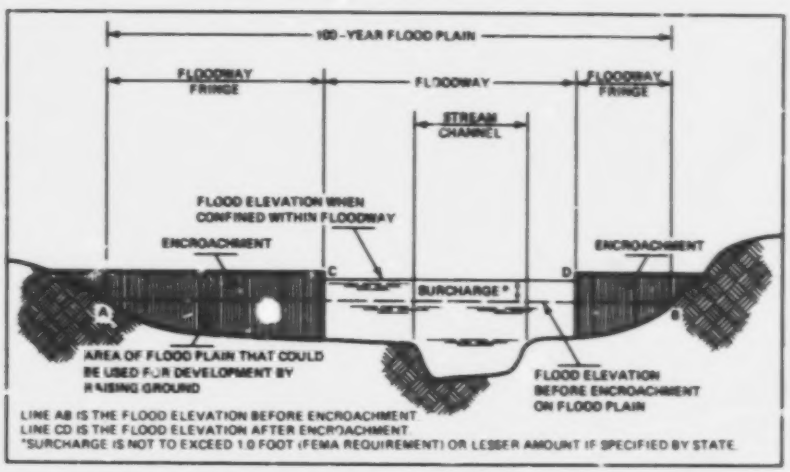
100-YEAR FLOOD PLAIN
FLOODWAY FRINGE
FLOODWAY
FLOODWAY FRINGE
STREAM CHANNEL
FLOOD ELEVATION WHEN CONFINED WITHIN FLOODWAY
ENCROACHMENT
ENCROACHMENT
C
D
SURCHARGE *
A
B
AREA OF FLOOD PLAIN THAT COULD BE USED FOR DEVELOPMENT BY RAISING GROUND
FLOOD ELEVATION BEFORE ENCROACHMENT ON FLOOD PLAIN
LINE AB IS THE FLOOD ELEVATION BEFORE ENCROACHMENT
LINE CD IS THE FLOOD ELEVATION AFTER ENCROACHMENT
*SURCHARGE IS NOT TO EXCEED 1.0 FOOT (FEMA REQUIREMENT) OR LESSER AMOUNT IF SPECIFIED BY STATE

FIGURE 2 - Floodway Schematic

The floodways in this study are presented to local agencies as minimum standards that can be adopted directly or that can be used as a basis for additional floodway studies.

5.0 INSURANCE APPLICATION

To establish actuarial insurance rates, data from the engineering study must be transformed into flood insurance criteria. This process includes the determination of reaches, Flood Hazard Factors, and flood insurance zone designations for each flooding source studied in detail affecting the Village of Long Creek.

5.1 Reach Determinations

Reaches are defined as sections of flood plain that have relatively the same flood hazard, based on the average weighted difference in water-surface elevations between the 10- and 100-year floods. This difference may not have a variation greater than that indicated in the following table for more than 20 percent of the reach:

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Average Difference Between 10- and 100-year Floods	Variation
Less than 2 feet	0.5 foot
2 to 7 feet	1.0 foot
7.1 to 12 feet	2.0 feet
More than 12 feet	3.0 feet

The locations of the reaches determined for the flooding sources of the Village of Long Creek are shown on the Flood Profiles and summarized in Table 3, Flood Insurance Zone Data.

5.2 Flood Hazard Factors

The Flood Hazard Factor (FHF) is used to establish relationships between depth and frequency of flooding in any reach. This relationship is then used with depth-damage relationships for various classes of structures to establish actuarial insurance rate tables.

The FHF for a riverine reach is the average weighted difference between the 10- and 100-year flood water-surface elevations rounded to the nearest 0.5 foot, multiplied by 10, and shown as a 3-digit code. For example, if the difference between elevations is 0.7 foot, the FHF is 005; if the difference is 1.4 feet, the FHF is 015; if the difference is 5.0 feet, the FHF is 050. When the difference is greater than 10.0 feet, it is rounded to the nearest whole foot.

5.3 Flood Insurance Zones

Flood insurance zones and zone numbers are assigned based on the type of flood hazard and the FHF, respectively. A unique zone number is associated with each possible FHF and varies from 1 for a FHF of 005 to a maximum of 30 for a FHF of 200 or greater.

Zone A: Special Flood Hazard Areas inundated by the 100-year flood, determined by approximate methods; no base flood elevations are shown or FHFs determined.

Zone A4: Special Flood Hazard Areas inundated by the 100-year flood, determined by detailed methods; base flood elevations are shown, and zones subdivided according to FHFs.

Zone B: Areas between the Special Flood Hazard Areas and the limits of the 500-year flood; areas that are protected from the 100- and 500-year floods by dike, levee, or other water control structure; or areas subject to certain types of 100-year shallow flooding where depths are less

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than 1.0 foot; and areas subject to 100-year flooding from sources with drainage areas less than 1 square mile. Zone B is not subdivided.

Zone C: Areas of minimal flooding; not subdivided.

Flood elevation differences, FHFs, flood insurance zones, and base flood elevations for each flooding source studied in detail in the community are summarized in Table 3, Flood Insurance Zone Data.

5.4 Flood Insurance Rate Map Description

The Flood Insurance Rate Map for the Village of Long Creek is, for insurance purposes, the principal product of the Flood Insurance Study. This map contains the official delineation of flood insurance zones and base flood elevation lines. Base flood elevations show the locations of the expected whole-foot water-surface elevations of the base (100-year) flood. The base flood elevations and zone numbers are used by insurance agents, in conjunction with structure elevations and characteristics, to assign actuarial insurance rates to structures and contents insured under the National Flood Insurance Program.

6.0 OTHER STUDIES

A Flood Insurance Study has been published for the City of Decatur, Illinois (Reference 9). This study incorporates a revised hydraulic analysis for Long Creek, and, therefore, does not agree with the City of Decatur Flood Insurance Study.

A Flood Insurance Study is in progress for Macon County, Unincorporated Areas, Illinois (Reference 1). This study is in complete agreement with the Macon County study.

7.0 LOCATION OF DATA

Information concerning the pertinent data used in preparation of this study can be obtained by contacting the Natural and Technological Hazards Division, Federal Emergency Management Agency, 300 South Wacker Drive (24th Floor), Chicago, Illinois 60606.

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FLOODING SOURCE	PANEL[1]	ELEVATION DIFFERENCE[2] BETWEEN 1.0% (100-YEAR) FLOOD AND			FLOOD HAZARD FACTOR	ZONE	BASE FLOOD ELEVATION[3] (NGVD)
		10% (10-YEAR)	2% (50-YEAR)	0.2% (500-YEAR)			
LONG CREEK (EAST OF BIG CREEK)							
BACKWATER REACH	0005	−2.2	−0.8	1.2	020	A4	VARIES—SEE MAP
REACH 1	0005	−1.9	−0 7	0.6	020	A4	VARIES—SEE MAP

[1] FLOOD INSURANCE RATE MAP PANEL
[2] WEIGHTED AVERAGE
[3] ROUNDED TO NEAREST FOOT

TABLE 3

FEDERAL EMERGENCY MANAGEMENT AGENCY

VILLAGE OF LONG CREEK, IL
(MACON CO.)

FLOOD INSURANCE ZONE DATA

LONG CREEK (EAST OF BIG CREEK)

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8.0 REFERENCES AND BIBLIOGRAPHY

1. Federal Emergency Management Agency, Flood Insurance Study, Macon County, Unincorporated Areas, Illinois (in progress).

2. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Environmental Data Services, Climatological Data, 1980.

3. U.S. Geological Survey, Technique for Estimating Magnitude and Frequency of Floods in Illinois, G.W. Curtis, 1977.

4. State of Illinois, Department of Transportation, Division of Water Resources Management, Magnitude and Frequency of Floods in Illinois, Jack M. Carns, 1973.

5. U.S. Geological Survey, 7.5 Minute Series Topographic Maps, Scale 1:24000, Contour Interval 10 feet: Decatur, Illinois, 1967, Photorevised 1975; Long Creek, Illinois, 1967, Photorevised 1975.

6. U.S. Army Corps of Engineers, HEC-2 Water-Surface Profiles, User's Manual, Davis, California, November 1976.

7. U.S. Department of Housing and Urban Development, Federal Insurance Administration, Flood Hazard Boundary Map, Macon County, Unincorporated Areas, Illinois, September 1978.

8. Illinois Department of Transportation, Division of Water Resources, Rules and Regulations, Regulation of Construction Within Flood Plains Established Pursuant to Section 65f, Chapter 19, Illinois Revised Statutes, Springfield, Illinois, 1973.

9. U.S. Department of Housing and Urban Development, Federal Insurance Administration, Flood Insurance Study, City of Decatur, Illinois, February 1979.

Macon County Regional Plan Commission, The Comprehensive Plan, Macon County, Illinois, Summary Report, June 1973.

State of Illinois, Department of Public Works and Buildings, Division of Waterways, Floods in Illinois: Magnitude and Frequency, William D. Mitchell, 1954.

U.S. Department of Transportation, Federal Highway Administration, Hydraulics of Bridge Waterways, Joseph N. Bradley, Washington, D.C., September 1973.

U.S. Water Resources Council, A Uniform Technique for Determining Flood Flow Frequency, December 1967.

_____, Guidelines for Determining Flood Flow Frequency, Washington, D.C., 1976.

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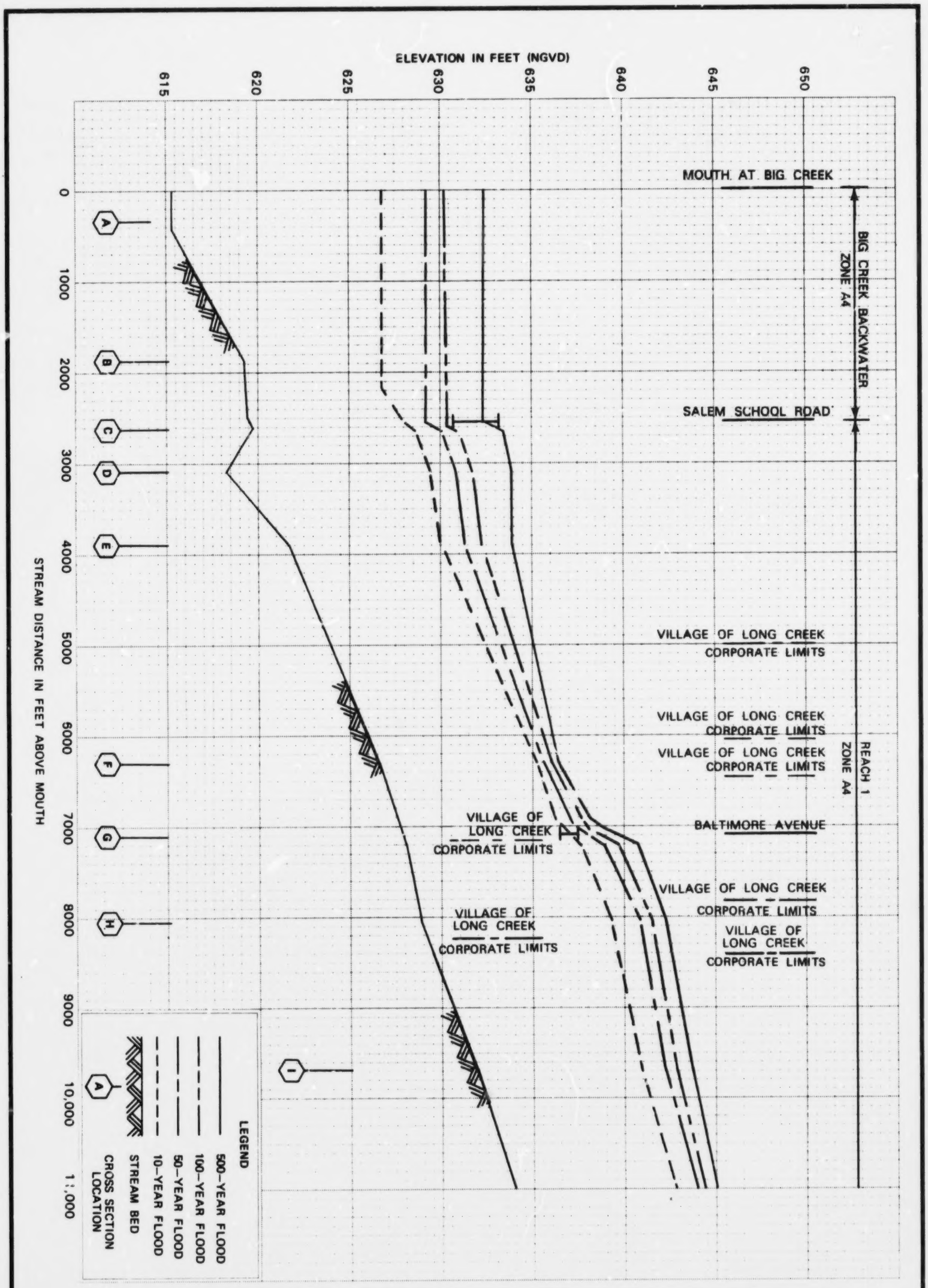

12P

FEDERAL EMERGENCY MANAGEMENT AGENCY

VILLAGE OF LONG CREEK, IL
(MACON CO.)

FLOOD PROFILES

LONG CREEK (EAST OF BIG CREEK)

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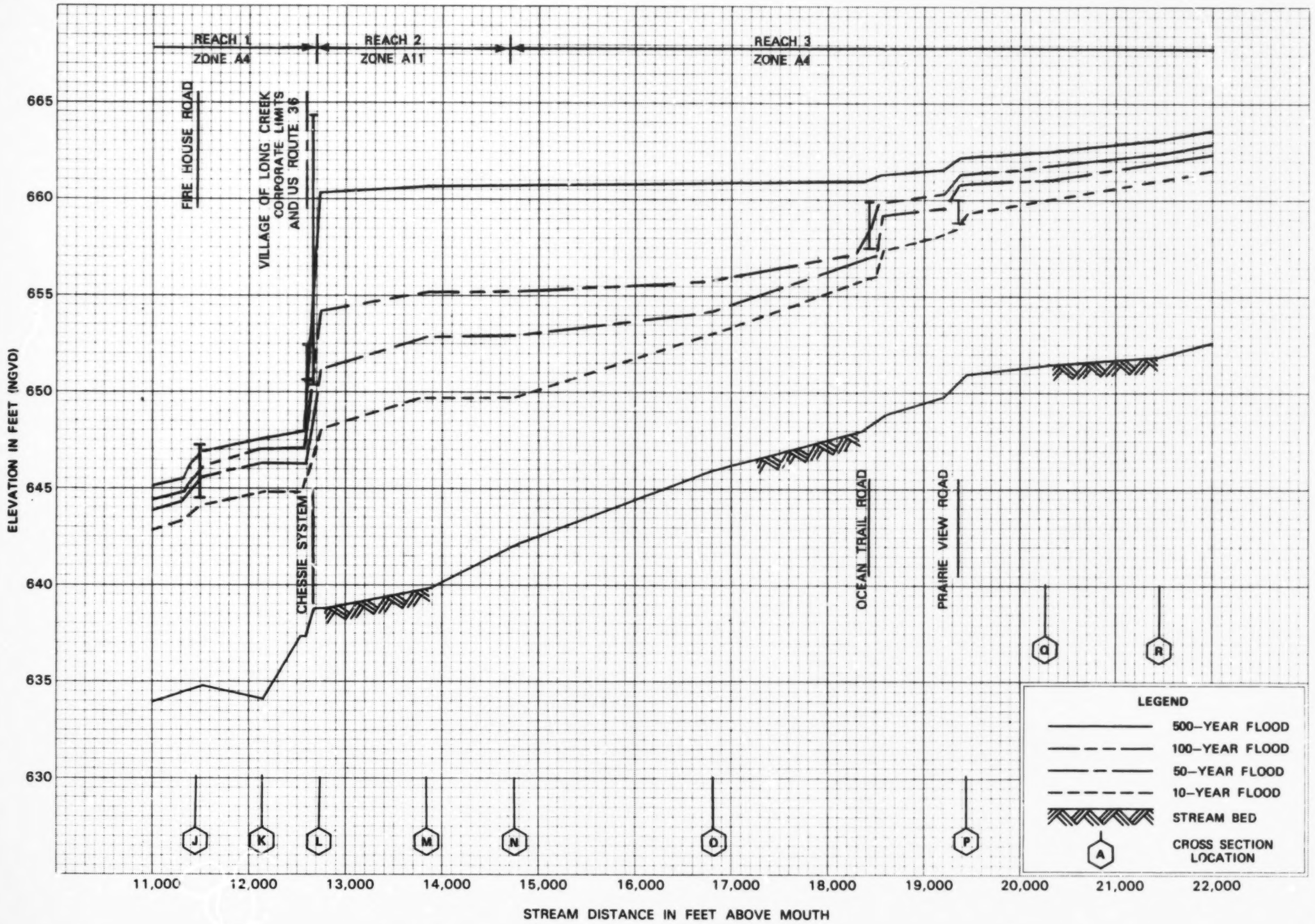

FLOOD PROFILES

LONG CREEK (EAST OF BIG CREEK)

FEDERAL EMERGENCY MANAGEMENT AGENCY

VILLAGE OF LONG CREEK, IL
(MACON CO.)

13P

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